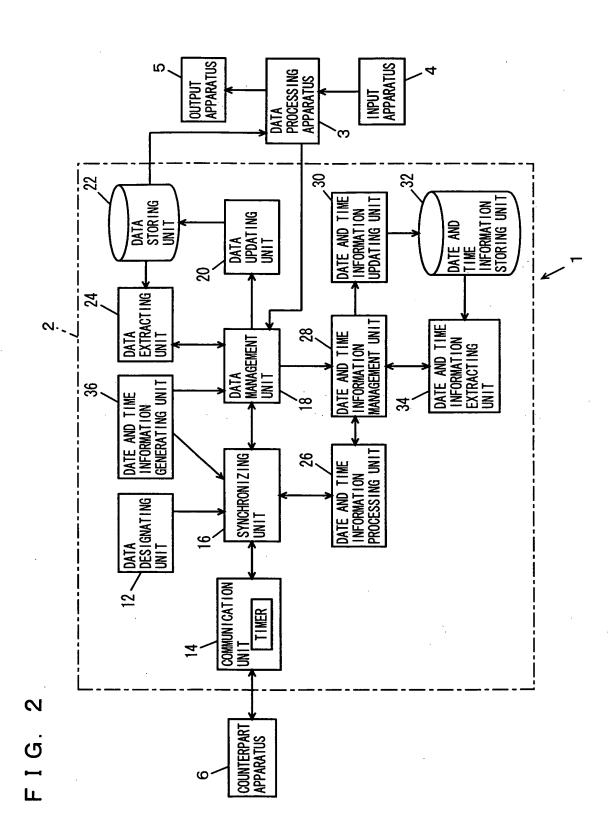
F I G. 1

TIME	DBUCECC	APPARATUS A	US A	APPARATUS B	TUS B	APPARATUS C	o Sn
	LINOLESS	DATA	UPDATE Information	DATA	UPDATE INFORMATION	DATA	UPDATE INFORMATION
2		α0(t0, t0)	0	α0(t0, t0)	0	$\alpha$ 0(t0, t0)	1
t1	t1 UPDATE α IN APPARATUS C		0		0	α1(t0, t1)	
t2	UPDATE $lpha$ in apparatus a	$\alpha 2 (t0, t2)$	×		0		
t3	SYNCHRONIZE BETWEEN APPARATUSES A AND B		0	α2(t0, t2)	0		1
t4	SYNCHRONIZE BETWEEN APPARATUSES A AND C		0		0	α1(t0, t1)	.
	RESULT	α2(t0, t2)	0	$\alpha 2 (t0, t2)$	0	α1(t0, t1)	



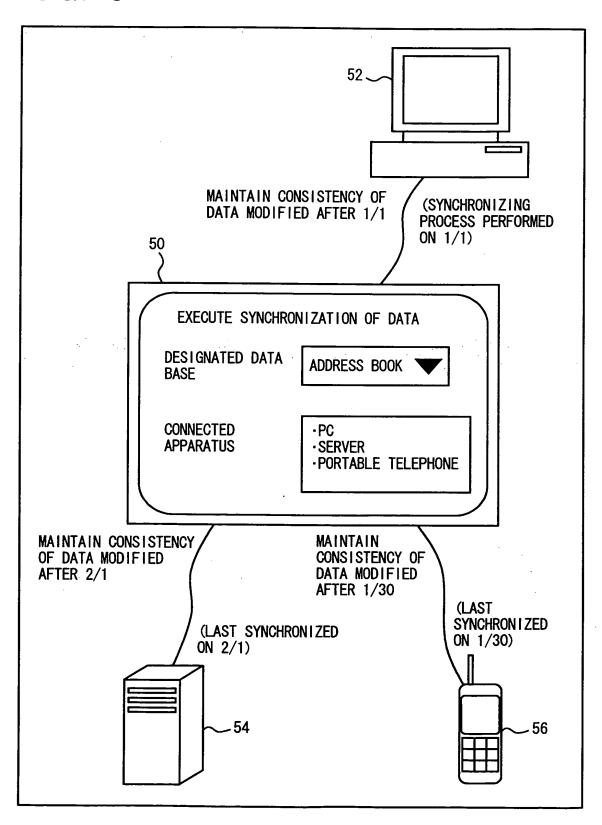
## FIG. 3

DATA BASE	DATA	DATE AND TIME	DATE AND TIME	DATE AND TIME OF DELETION
TYPE	NUMBER	OF NEW CREATION	OF UPDATING	
ADDRESS BOOK	1	2000/01/01 00:01:23	2000/01/02 00:12:34	_
ADDRESS BOOK	2	2000/02/02 12:34:56	· <u>—</u>	2000/02/22 21:10:00
SCHEDULE	1	2000/02/01	2000/02:02	2000/02/03
BOOK		12:59:59	10:00:00	15:23:46

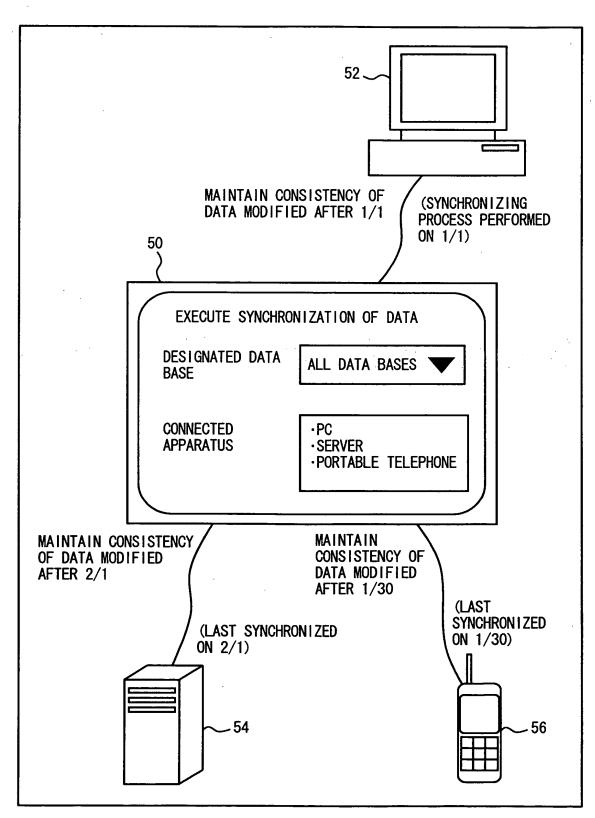
## F I G. 4

APPARATUS NUMBER	APPARATUS IDENTIFICATION NUMBER	APPARATUS NAME	APPARATUS INFORMATION	DATA BASE TIME	DATE AND TIME OF SYNCHRONIZING PROCESS
1	123. 456. 789	PERSONAL PORTABLE TELEPHONE	PORTABLE TELEPHONE	ADDRESS BOOK	2000/01/01 00:01:23
2	000. 111. 222	OFFICE PC	PC	ADDRESS BOOK	2000/02/02 12:34:56
3	987. 654. 321	OFFICE SERVER	SERVER	SCHEDULE BOOK	2000/02/02 12:59:59

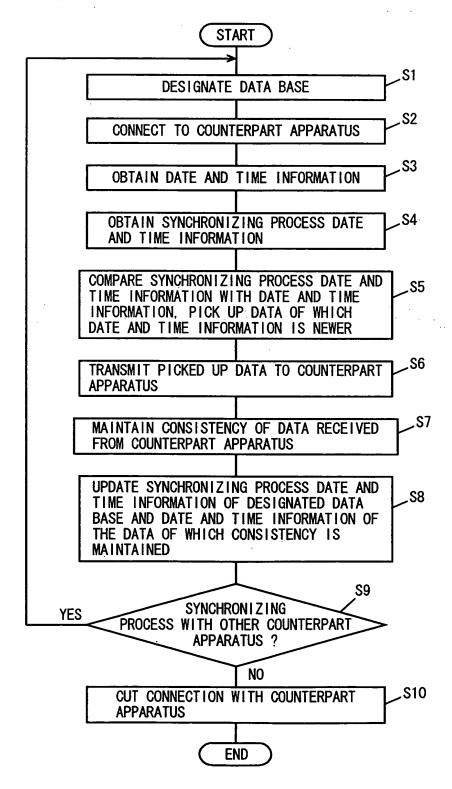
F I G. 5



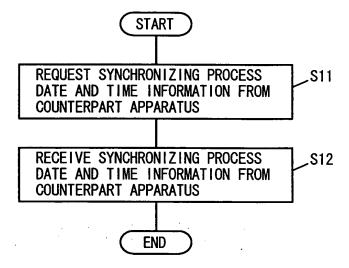
F I G. 6



F I G. 7

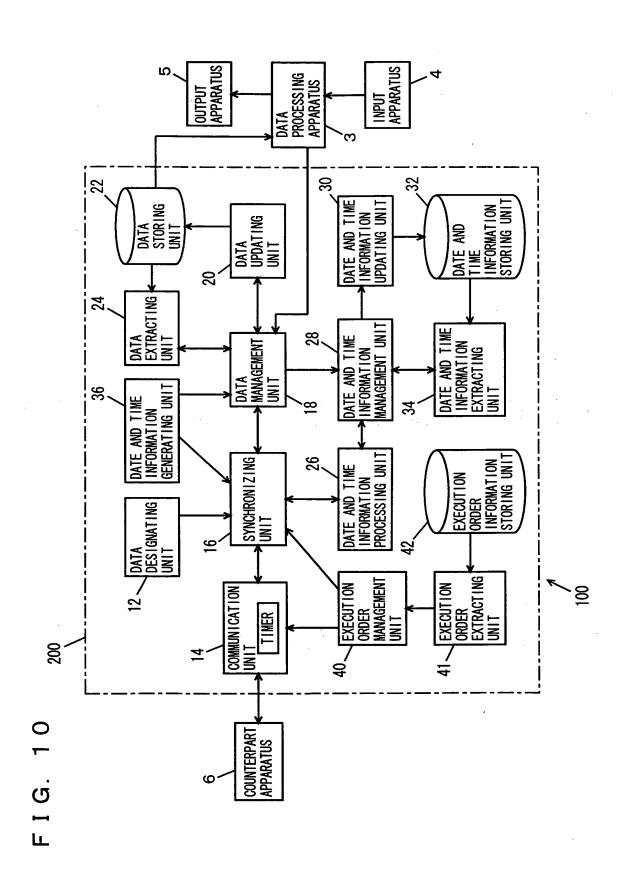


F I G. 8



F I G. 9

T MF	PROCESS		APPARATUS A		APPARATUS B	APPARATUS C
<u> </u>  -		DATA	TIME POINT OF LAST SYNCHRONIZING PROC	TIME POINT OF LAST SYNCHRONIZING PROCESS	DATA	DATA
			A - B	A – C		
t0	NEWLY CREATE DATA α IN APPARATUS A	$\alpha 0 (t0, t0)$	1	1.		-
tl	SYNCHRONIZING PROCESS BETWEEN APPARATUSES A AND B	$\alpha$ 0(t0, t0)	ŀ	-	$\alpha$ 0(t0, t0)	l
t2	SYNCHRONIZING PROCESS BETWEEN APPARATUSES A AND C	$\alpha$ 0(t0,t0)	ŧ1	-	$\alpha$ 0(t0, t0)	$\alpha$ 0(t0, t0)
<del>1</del> 3	UPDATE $lpha$ in apparatus c	$\alpha 0$ (t0, t0)	t1	t2	$\alpha$ 0(t0, t0)	α1(t0, t3)
t4	UPDATE $lpha$ in apparatus a	$\alpha 2 (t0, t4)$	t1	t2	$\alpha$ 0(t0, t0)	α1 (t0, t3)
£5	SYNCHRONIZING PROCESS BETWEEN APPARATUSES A AND B	$\alpha 2 (t0, t4)$	t1	t2	α2(t0, t4)	α1 (t0, t3)
t6	SYNCHRONIZING PROCESS BETWEEN APPARATUSES A AND C	$\alpha 2$ (t0, t4)	t5	t2	$\alpha 2 (t0, t4)$	$\alpha 2 (t0, t4)$
	RESULT	$\alpha 2 (t0, t4)$	t5	t6	α2(t0, t4)	$\alpha 2 (t0, t4)$



## FIG. 11

NUMBER	APPARATUS IDENTIFICATION NUMBER	APPARATUS NAME	EXECUTION ORDER INFORMATION
1	123. 456. 789	PERSONAL PORTABLE TELEPHONE	1
2	000. 111. 222	OFFICE PC	3
3	987. 654. 321	OFFICE SERVER	2

FIG. 12

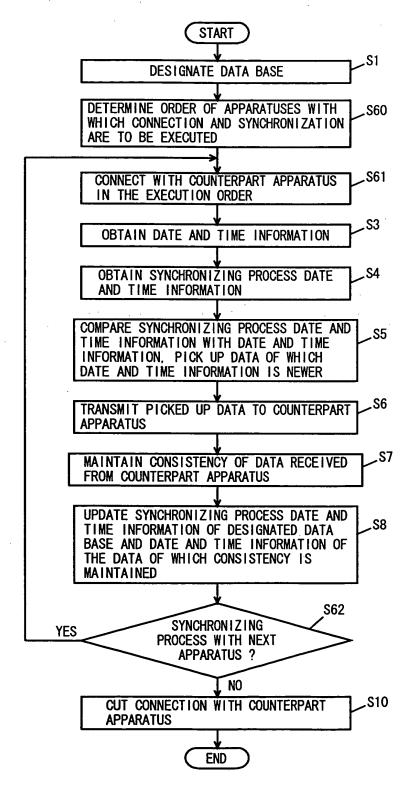


FIG. 13

			APPARATIIS A	A SII			APPARATIIS B	TIS B	APPAR	APPARATIIS C	APPARATUS	ATHS D
										)		
TIME	PROCESS	DATA		LAST &	LAST SYNCHRONIZING PROCESS TIME	IZING	DATA		DATA		DATA	
		DATA $\alpha$	DATA B	A - B	A - C	A - D	DATA $\alpha$	DATA B	DATA α	DATA B	DATA α	DATA B
t0	NEMLY GREATE DATA $lpha$ in apparatus a	$\alpha 0 (t0, t0)$	-	- 1	l	ı	_	-				ı
t1	NEWLY CREATE DATA $eta$ In Apparatus B	$\alpha 0$ (t0, t0)	-	-	-	ı		β0(t1, t1)	ı	ı	1	1
t2	SYNCHRONIZING PROCESS BETWEEN APPARATUSES A AND B	α0(t0, t0)	β0(t1, t1)	t2	_	1	α0(t0, t0)	β0(t1, t1)	ı	ļ	1	1
ಚ	SYNCHRONIZING PROCESS BETWEEN APPARATUSES A AND C	α0(t0, t0)	β0(t1, t1)	t2	t3	1	α0(t0, t0)	β0(t1, t1)	α0(t0, t0)	β0(t1, t1)	1	ı
t4	SYNCHRONIZING PROCESS BETWEEN APPARATUSES A AND D	α0(t0, t0)	80(t1, t1)	t2	t3	t4	$\alpha$ 0(t0, t0)	β0(t1, t1)	α0(t0, t0)	β0(t1, t1)	α0(t0, t0)	β0(t1, t1)
ts	UPDATE & IN APPARATUS C	α0(t0, t0)	β0(t1, t1)	<b>t</b> 2	+3 ·	t4	α0(t0, t0)	β0(t1, t1)	α1 (t0, t5)	β0(t1, t1)	$\alpha 0 (t0, t0)$	β0(t1, t1)
<b>£</b>	UPDATE & IN APPARATUS A	α2(t0, t6)	β0(t1, t1)	t2	t3	t4	α0(t0, t0)	B0(t1, t1)	a1(t0,t5)	β0(t1, t1)	α0(t0, t0)	β0(t1, t1)
t)	SYNCHRONIZING PROCESS BETWEEN APPARATUSES A AND B	α2(t0, t6)	β0(t1, t1)	t2	t3	t4	α2(t0, t6)	β0(t1, t1)	α1 (t0, t5)	β0(t1, t1)	α0(t0, t0)	β0(t1, t1)
t8	SYNCHRONIZING PROCESS BETWEEN APPARATUSES A AND C	α2(t0, t6)	β0(t1, t1)	t6	t3	t4	α2(t0, t6)	β0(t1, t1)	α2(t0, t6)	β0(t1, t1)	$\alpha 0 (t0, t0)$	β0(t1, t1)
t9	SYNCHRON IZING PROCESS BETWEEN APPARATUSES A AND D	α2(t0, t6)	β0(t1, t1)	t6	t8	t4	α2(t0, t6)	B0(t1, t1)	α2(t0, t6)	β0(t1, t1)	α2(t0, t6)	β0(t1, t1)
	RESULT	$\alpha 2 (t0, t6)$	β0(t1, t1)	t6	t8	t9	α2(t0, t6)	80(t1, t1)	$\alpha 2$ (t0, t6)	β0(t1, t1)	$\alpha 2 (t0, t6)$	β0(t1, t1)

FIG. 14

